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ABSTRACT

This paper reviews the literature concerning the personal characteristics, professional characteristics, and teaching methods or styles of effective teachers of gifted students. The review is divided into three sections. First, a brief historical overview of gifted education since ancient times is offered. The next section looks at the opinions expressed by experts in the field of gifted education on essential characteristics of teachers of the gifted. The experts generally agreed that standards for teacher training should be established, that the teacher of the gifted should have state certification and/or an endorsement in gifted education, and that the teacher should have high intelligence, an understanding of giftedness, originality, and self-confidence. A table compares four editorial studies which examined experts' listings of desirable teacher characteristics. The bulk of the report reviews empirical studies of teacher characteristics. A table compares 10 such studies. Among desirable teacher characteristics identified by these studies are intelligence, enthusiasm, achievement, drive, self-confidence, promotion of student independence, and a preference for teaching gifted children. (Contains 51 references.) (DB)

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What are the Most Effective Characteristics of Teachers of the Gifted?

William J. Heath

The literature on gifted education is abundant and varied. Moreover, large bodies of literature are available in the areas of gifted education regarding teacher characteristics and teacher perceptions. Many experts in gifted education have created lists of recommended and necessary qualities and characteristics of effective teachers. These lists are the result of editorial opinion and empirical keying investigations.

This article reviews the literature concerning all the personal characteristics, professional characteristics, and teaching methods or styles, which are significant and relevant to the purpose of this study. Therefore, this review is divided into three major sections: (a) historical overview, (b) editorial expert opinion research, and (c) empirical research. The article concludes with a summary of the related literature.

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Historical Overview

Throughout time, some form of measurement, testing, and evaluation has always been part of human education. The ancient Chinese, Greeks, and Egyptians devised sophisticated complex measurements, such as oral tests of knowledge and competency tests, in order to find children of outstanding ability and to educate them for later responsible positions. Even in the Middle-Ages, Emperor Charlemagne and the rulers of the Ottoman Empire sought out the

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intellectually advanced children to be educated at state expense. In more recent history, since the colonization of America, there have been attempts to understand and plan special programs for the gifted. However, the degree of interest in highly intelligent children in the United States has fluctuated widely since the 18th century, and has continued to do so through the present day. Special education provisions for bright children have also experienced varying degrees of support. There are numerous reasons for this variation, including such factors as the country's defense needs and the economic realities of world competition (Crammer, 1991). When a crisis exists, interest in gifted education increases dramatically; when the situation eases, so does the interest.

The earliest attempt to make some provision for gifted children in the American education system was probably that of William T. Harris in St. Louis in the late 1860s. His efforts to care for superior children consisted mainly of introducing a greater flexibility in the grading and promotion system of his schools (Goddard, 1928; Sumption,1941). These ideas spread and eventually led to a second wave of interest in gifted education starting around 1900. During this time, experts in gifted education recognized the fact that teachers needed to be made aware of acceleration in the curriculum with the use of techniques of curriculum compacting and advanced student placement in the schools. It was therefore natural that further advances in the 1920s emphasized the need for the teacher to provide enrichment activities in the curriculum for the gifted and talented student.

Expert Editorial Opinion of Teacher Characteristics

The review of the literature shows that during the past, particularly in the last several decades, many experts in the field of gifted education have written descriptions of the characteristics and teaching characteristics they believe to be essential for teachers of the gifted. These teacher characteristics are not based upon any scientific methodology, but rather on the experts' own personal observations and experiences. Since these characteristics are from the recognized experts in the field of gifted education, they are included in this literature review.

According to the numerous descriptions in the literature, experts in gifted education believe that certain professional and personal characteristics are not only necessary but also essential for teachers of gifted children. Merlin (1994) believed that recognizing and finding "those few good people" can make a world of difference in the life of a gifted child. Hansford (1985) stated that gifted children have special educational, social, and emotional needs that differ from those of other children. To meet these needs requires a special type of "good" teacher. She found that many of the characteristics of effective teachers of gifted children (e.g., a thorough understanding of subject matter, self-confidence, a good sense of humor, organizational skills) are characteristics of all effective teachers. However, there are other qualities that are of special significance to teachers of gifted children, and which are as vital as advanced degrees and years of experience. Hansford identified five such qualities. First is openness, which refers to the teacher's ability to be

sensitive and accepting. Second is flexibility. Effective teachers of the gifted must be flexible in their approach towards curriculum and learning. Third, a positive sense of self is imperative for teachers of the gifted. Fourth is having strong communication skills, and fifth is intelligence.

Other experts in gifted education highlighted additional characteristics for teachers of the gifted. Freehill (1974) believed that desirable teacher attributes are only tentatively inferred from expert opinion, child rating of teachers, and retrospective studies of development. Two qualities stand out: intelligence and empathy. Intelligence is broadly described to include delight in learning, knowledge, curiosity, and a sense of mutuality with able children. Empathy appears on most lists of positive qualities. Typically, Torrance and Myers (1970) also said that a teacher must be able to imagine the thinking and feeling of the child in order to respond accurately. Thus, teachers of the gifted must be similar in many respects to those they teach. Newland (1962) found that teachers of the mentally superior must have the so-called essentials. He described the essentials as being emotionally secure in order to withstand the rigors of intellectual bombardment and to enjoy the pursuit of the less well known. Also, teachers should be intellectually curious and agile, concerned with the joy in the act of learning and prone to seek and experience new structures of experience. In addition, they should have a moderate to high energy level. The teacher with this characteristic is always doing something more, finding and using the extra materials and sources that so many teachers seem to overlook. Professionally, these teachers should

have two or three years of highly effective teaching experience and a broad cultural sensitivity and curiosity.

The experts seemed to agree that standards for teacher training should be established and that the teacher of the gifted should have at least state certification and or an endorsement in gifted education. The experts also agreed that the teacher of the gifted should have high intelligence. Not necessarily gifted themselves, these teachers should have an understanding of giftedness, originality, and self-confidence.

Throughout the literature, only four studies focused exclusively on characterizing and identifying desirable teacher characteristics for teachers of the gifted. Specific information from these studies is presented chronologically in Table 1.

TABLE 1

Editorial Studies of Professional, Personal and Teaching Behavior Characteristics of Teachers of the Gifted

Study	Author	Date	Desirable Traits
Some Observations on Essential Qualifications of Teachers of the Mentally Superior	Newland, T. E.	1962	Emotionally Secure Intellectually Curious Intellectually Agile Seeks New Experiences High Intelligence State Certification or Endorsement
Creative Learning and Teaching	Torrance, E.P. & Myers, R.E.	1970	Empathy High Intelligence State Certification or Endorsement
Intelligence, Empathy and Methodological Bias About Teaching The Gifted	Freehill, M. F.	1974	Intelligence Empathy State Certification or Endorsement

(Table Continues)

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Study	Author	Date	Desirable Traits
What It Takes to Be a Gifted / Talented Teacher	Hansford, S. J.	1985	Openness Flexibility Positive Sense of Self Strong Communication Skills Intelligence State Certification or Endorsement

Finally, Hansford (1985) noted that the researcher and practitioner should recognize that each of these desirable characteristics (along with others, perhaps) may not be of equal weight or significance. However, a less than ideal amount of one characteristic may be offset by a particularly heavy contribution by some other characteristics. Yet it is doubtful that any single characteristic could be completely omitted from the total pattern of desirability.

Empirical Studies of Teacher Characteristics

The review of the literature reveals many systematic investigations into the desirable characteristics of teachers of gifted children. These studies approached this topic from different directions. Some studies systematically asked experts in gifted education to rate desirable characteristics. Other studies measured the characteristics of teachers themselves. One study by Frevert (1993) asked school principals to rate the characteristics of teachers of the gifted. One study asked school teachers to rate the characteristics of effective principals, or of supervisors that irritated

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them. However, no studies were found that asked teachers to rate other teachers and identify the characteristics that create effective teachers of the gifted.

The research further indicates that training and experience are positive influences on the effectiveness of teachers of the gifted. For example, Weiner and O'Shea (1963) discovered that positive attitudes of teachers towards gifted learners increased if the teachers had even one course in the education of the gifted. In addition, Orenstein (1984) found that school districts providing continuous training for their teachers were identified as having the most effective gifted programs. Davis and Rimm (1985) asserted that indifferent teachers can become more receptive to gifted programs when exposed to issues in gifted education.

The review of literature shows several empirical investigations into the teaching behavior and the professional and personal characteristics of teachers of the gifted. Empirical studies of the characteristics of teachers are listed in chronological order in Table 2. Following the table are more detailed explanations of the actual studies.

TABLE 2

Empirical Studies of Professional, Personal and Teaching Behavior Characteristics of Teachers of the Gifted

Author	Date	Sample	Instrument	Results
J. Renzulli	1968	21 expert Judges	Delphi Technique Rank Order List	The Teacher The Curriculum Student Selection Procedures Philosophy and Objectives Staff Orientation Evaluation Plan Administrative Responsibility
A. Dorhout	1983	110 teachers	Preferred Instructor Scale Continuum	Cognitive Intellectual Attributes Personal Social Attributes Displayed on an Attributes Continuum
D. Maddux, I. Samples-Lachman	1985	98 gifted children	SPOT Scale	Personal-Social Cognitive Classroom Management
B. Ferrel, M. Kress, & J. Croft	1988	76 teachers	Interviews	Mission Empathy Rapport / Drive Individualized Perception Listening Investment Input Drive Activation Innovation Gestalt Objectivity Focus
R. Wendel & S. Heiser	1989	3 teachers 73 students	3 Ethnographic Teacher Opinionaires	Sense of Humor Enthusiasm Creativity Care for Gifted Student Respect for Gifted Student High Expectations Flexibility Teacher Intelligence Close Physical Presence Use of Probing Questions

(Table Continues)

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Author	Date	Sample	Instrument	Results
M. Whitlock, J. DuCette	1989	10 teachers	Interviews from each group of teachers	Enthusiasm Personal Flexibility Self-Confidence Empathy Openness Motivating Students Facilitator Role Building Program Support Advocacy Applying Knowledge Achievement Orientation Commitment
R. Crammer	1991	29 experts in the field	Delphi Technique Rank Order List	Curriculum Identification Teacher Selection & Training Special Populations Program Goals Definition of Gifted
H. Dangle, J. Walker &	1991	97 Teachers	Survey of 30 of the Gifted & Teachers	Never Compliments Teaching Not Understanding Teaching G/T Made to Feel Inferior Inconsistency Wastes Teachers' Time
R. Copenhaver D. Mc Intyre	1992	85 Teachers	Open-Ended Questionnaire	Teachers of gifted need more grade specific preservice and inservice course work and involvement with gifted students.
A. Frevert	1993	51 Principals	Three Round Delphi Technique	Inspires critical thinking Teach at higher Cognitive Level Ask high level questions Promotes creative & divergent thinking Activities that stimulate higher level Encourages students to be learners Motivates children Able to be flexible Nurtures questions Accepts diverse answers Generates high level discussion Encourages students to take risk

(Table Continues)

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Author	Date	Sample	Instrument	Results
				Extends student thinking High level of student involvement Fluent use of questioning strategies A facilitator for learning Treats students fairly openly Accommodates student differences Allows freedom to work, learn, progress Instruction is interdisciplinary Positive rapport with children Capitalizes on opportunities for learning Makes work relevant Presents challenging materials

As noted in Table 2, a study by Renzulli (1968) using the Delphi technique was undertaken to determine which features and characteristics of programs for the gifted are considered by authorities in the field to be the most necessary and sufficient for comprehensive programming. The purpose of the study was to isolate, through systematic procedures, a basic core of key features that could be used for program development and evaluation. The concept of key features represents an essential part of the rationale upon which this study was based. This concept holds that if the more essential features of a program are found to be present and operating in an excellent manner, then the probability of less critical features being present is high. The procedure of this study consisted of selecting a panel of 21 expert judges and then asking each of them to develop a list of general features and processes which represented various identifiable dimensions of programs for the gifted. This list

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was then compiled and resubmitted to the panel, who were asked to rank in order of importance those features they considered to be the most necessary for a worthy gifted program. The result of this inquiry was tabulated by means of a pooled frequency rating technique based upon the most popular method of assigning to the most frequently chosen response the rank of number one.

Renzulli's effort was aimed at providing a sound rationale for decision making to persons who are involved in various aspects of programming for the gifted. Seven features were considered to be relatively more essential than others and were designated as being key features of differential programs for the gifted. These features are (1) the teacher, (2) the curriculum, (3) student selection procedures, (4) a statement of philosophy and objectives, (5) staff orientation, (6) a plan of evaluation, and (7) administrative responsibility. Renzulli's study asserted that teachers of the gifted will have relatively greater demands made upon them by vigorous and imaginative young minds; therefore, special attention must be given to the selection and training of teachers for the gifted. Also, in order for any gifted program to succeed, staff orientation must be of a cooperative and supportive nature. The staff and teachers must have a sympathetic attitude toward special provisions for the gifted and a basic understanding of the theory and operation of a special program which would allow the program to reach its maximum effectiveness. In this study no information was given as to who the experts on the panel were or how they were selected and defined. In this study and the following studies, there was a general lack of

participation of classroom teachers. Ironically, most of these studies have had a direct impact on the selection of teachers for the gifted.

Another study by Dorhout (1983) determined where, on a Displayed Attributes Continuum, the preferences of academically gifted elementary and secondary students lie, and whether the teachers of this population possess accurate perceptions of their students' preferences. Two hundred seventy-nine randomly selected academically gifted students in grades 5 through 12 and 110 randomly selected teachers of the academically gifted were participants in this study. The Preferred Instructor Characteristic Scale (PICS) was used to disclose the level of personal-social or cognitive-intellectual preference. The instrument consisted of 36 items, each containing two statements, one expressing a personal-social teacher behavior, the other expressing a cognitive-intellectual teacher behavior.

The subjects, all students, involved in the study were asked to complete the PICS, taking as much time as they needed. The scales were then collected and scored. The study did not include any information concerning the reliability or validity of the PICS. However, upon analysis of the data, it was found that the teacher attributes preferred among academically gifted students were significantly different from teachers' perceptions of student preferences. The discrepancy between student preferences and teacher perceptions of student preferences may have been creating an atmosphere in the classroom that is not optimally conducive to learning. The data also reflected that teachers of the academically gifted secondary students needed to become aware of student

preferences as a preliminary step in developing a personal-social and cognitive-intellectual balance which is more consistent with student preferences. This study included students, yet no classroom teachers were asked to participate.

Maddux, Samples-Lachmann and Cummings (1985) also did a study involving gifted students. Its purpose was to determine the preferences of a group of identified gifted children in the United States in regard to certain teacher characteristics. The study consisted of two groups of subjects. One group, 123 gifted junior high students, participated in the construction of the instrument. After the instrument was developed, it was administered to 98 gifted children in the seventh grade. Results from the study contradicted the results found by Milgram (1979). Whereas Milgram reported all students in the sample valued the domain of intelligence more highly than the other two domains of personal-social and classroom management, the later study revealed gifted students valued personal-social characteristics more than cognitive or classrooms-management variables. One point of agreement was that the gifted children in the higher IQ group did value cognitive variables more than the lower IQ group.

Results of the 1985 study may have some tentative implications for preservice teachers and inservice teacher education in gifted and talented education. However, teachers were not included in the sample. In general, the gifted subjects in the study indicated they valued teacher characteristics from all three domains including friendliness, confidence in students, a sense of humor, knowledge of subject taught, imagination, the teaching of useful information, open

class discussions, treatment of students as adults, and organized teaching.

In another study, Ferrell, Kress, and Croft (1988) looked at evaluation results from a gifted and talented program of a large urban school district in the southwest. One of the most frequent and persistent criticisms was quality of the program's teachers. Parents and students alike cited a lack of understanding for the needs of the gifted, as well as the inability to provide for these needs, as shortcomings of the teachers in the program. So their study was designed to explore the use of the Teacher Perceiver Interview (TPI) as a tool in the selection of teachers for the district's full day gifted program. The TPI is a structured interview consisting of 60 open-ended low stress questions taking approximately one hour to administer. The study used 76 teachers employed in a large urban school district's in the southwest. Thirty of the teachers were currently working in the districts full day program for gifted and talented, and the remaining 46 were working as classroom teachers in the district's regular academic setting.

In assessing the usefulness of the TPI as a tool to select teachers for the district's full day gifted program, two questions were addressed. First, how did these data relate to the characteristics of teachers of the gifted as reported in the literature and, second, did the instrument differentiate between teachers in the gifted program and teachers in the regular program? According to the discriminate analysis, six themes differentiated the two groups: Focus, Gestalt, Innovation, Mission, Rapport, Drive, and Investment. The most important of these three themes was Gestalt. According to the TPI, a

teacher who is high in Gestalt has a high standard of achievement and tends toward perfectionism. Another difference separating the two groups was innovation. Teachers who scored high on Innovation not only used new approaches in their teaching, but also strived to develop creativity in their students. Gifted teachers also differed from regular teachers in the TPI theme Rapport. Gifted teachers in the sample appeared to relate well with the gifted child. The three remaining themes, Focus, Mission, and Investment, were not found in the characteristics of gifted teachers.

This 1988 study was a first step at an attempt to quantify the method of selecting teachers for the gifted program who will have a chance of succeeding in working with gifted children. It was also an attempt to empirically document what has been done in this area. However, the researchers did not include any information concerning the reliability or validity of the TPI, nor did they explain how the instrument was administered.

Wendel and Heiser (1989) designed a study to use a new methodology, ethnographic research, in determining which teacher characteristics demonstrated by teachers of gifted students are seen by students and professionals as most effective. Ethnographic research allows the researcher to observe and document interaction among the subjects in a natural setting and to draw conclusions about a culture based on those observations. This study determined which behavioral characteristics effective teachers of the gifted demonstrated, as recorded and analyzed on video tape and supplemented by a student opinionnaire. Principals at an urban,

rural and suburban school were asked to nominate their most effective junior high teachers of the gifted.

A teacher at each school was videotaped and a comparison was made of teacher behavior, as observed on video tape, with a list of ten desired behaviors derived from the literature. From this study, two new findings were demonstrated by all of the subject teachers that were not listed in the ten characteristics recognized to be desirable in effective teachers of the gifted. First, the teachers maintained a close physical presence to the students while frequently touching as they moved about the classroom. The second consistently observed characteristic was the use of probing questions to stimulate discussion and additional thought. The teachers rarely answered questions but through skillfully worded questioning encouraged the students to dig deeper to find the answer. Both of these behaviors were consistently exhibited by all of the subject teachers; therefore, these were deemed useful techniques for effective teachers of the gifted. However, in this study, the researchers make broad conclusions using only a very small sample size. Bias has to be a consideration in this study, since there was no randomization and the principal selected the one teacher from their school to be used in the study.

Whitlock and DuCette (1989) posed the question of whether a sample of elementary teachers of the gifted identified as outstanding differs from a sample of elementary teachers of the gifted identified as average. A secondary purpose of the study was to determine whether teachers' beliefs about essential characteristics of successful gifted education teachers corresponds to those characteristics found

in primary research. At the time of this study, the authors argued that the field of gifted education did not have a comprehensive, integrated, and useful model that characterized the superior gifted education teacher. So the purpose of this study was an attempt to provide such a model by using the job analysis technique that had not been employed in this area before. The first part of this study convened a resource panel that met the following criteria: (1) be an expert on gifted education, (2) have extensive knowledge of the available population of gifted education teachers, and (3) have been involved at some level in supervision and evaluation of teachers of the gifted. There were 13 people that met the requirements and constituted the panel. Ultimately this panel, devised a 63-item, 4-point Likert survey.

The results from the survey indicated 12 competencies of the outstanding teachers of the gifted: (1) enthusiasm, (2) personal flexibility, (3) self-confidence, (4) empathy, (5) openness, (6) motivating students, (7) facilitator role, (8) building program support, (9) advocacy, (10) applying knowledge, (11) achievement orientation, and (12) commitment. The results offer support for the idea that a method developed for job analysis can be useful in determining the characteristics of outstanding teachers of the gifted. Specifically, outstanding teachers of the gifted differed from average teachers in their enthusiasm, self-confidence, role as facilitator, ability to build program support, and commitment. Although many of these characteristics have been noted in other research, none of this research has been used in selecting the outstanding teachers. The authors also suggested that appropriate training activities might

help teachers of the gifted to develop skills for building program support and advocacy. This research further suggested that it had provided evidence that job analysis, which was developed and validated in an industrial setting, can expand and elaborate models developed in education.

A study by Crammer (1991) used the Delphi technique to identify issues in the education of gifted children in the United States. A panel of 29 experts in the field of gifted education responded to the following questions:

1. Which key issues are perceived by the panel of experts as being the most important?
2. Which of the issues deserves top priority?
3. On issues deemed most important, which action should be taken at the federal, state, and local levels?
4. What are the experts' definitions of the term "gifted"?

The researcher gave no information concerning who was on the panel or how the panel was selected. However, the results of the study yielded six issues that were identified as critical. Question one resulted in 12 issues that were perceived as most important with the selection and training of teachers of the gifted at the top of the list. The results of question two, the selection and training of teachers of the gifted, ranked number 2 behind procedures for identifying children for programs. Questions three and four concerned themselves with very important issues that do not directly concern the purpose of this paper. However, Crammer's study found the following six issues most important: curriculum, teacher selection and training, special populations, program, goals, and definitions of

"gifted." Considering the issue of teachers of the gifted, the study recommended mandatory certification of teachers for the gifted. In addition, the state level should establish standards for teacher training and certification, and teachers should be hired with credentials based on training and experience in gifted education. Furthermore, all teachers, whether teaching gifted or regular students, should have training in the needs and characteristics of gifted students.

Two other studies have examined the relationship between teachers and supervisors. A survey conducted by Dangle, Walker and Sloop (1991) indicated that the relationship between teachers and supervisors is an important aspect of instructional programs frequently overlooked in training and evaluating personnel. The need for supportive program supervision is one of the necessary elements in developing effective programs for gifted students. Darden (1981) reported the poor relationship between supervisors as a major reason for Georgia teachers leaving the classroom. The purpose of this investigation was to identify behaviors of supervisors (including principals, curriculum directors, coordinators, and special education directors) that may be irritating to teachers of the gifted. A survey of 97 teachers of the gifted was conducted in several suburban and rural Georgia school systems to access their perceptions regarding the supervisory behaviors teachers viewed as irritating. A comparison group of 79 regular class teachers was also surveyed. The survey asked respondents to select from a list of 30 the five supervisory behaviors they would find most irritating to them. The results of the five items selected showed there was no

significant difference between the proportions of responses given for the top five items by the gifted and regular class teachers. Each of the five most frequently selected items was analyzed using the Chi-squared statistic to determine if there was any proportional difference (Chi-squared: 8.571; p =.73). The number one reported irritating behavior by a supervisor for both groups was "Rarely or never compliments me on a job I think I've done well." The authors saw the high level of choosing these top five items as an indication of genuine concern that should be addressed by teacher trainers, supervisors, and teachers of the gifted themselves, since what affects the teacher also affects the students.

Besides concern over supervision, researchers have questioned the training and experience of teachers of the gifted. Copenhaver and Mc Intyre (1992) did a study to determine if the number of gifted education courses a teacher has taken and the years of experience teaching gifted children are related to teachers' perceptions of the characteristics of gifted children. They asked 85 elementary and secondary teachers to complete an open-ended questionnaire. The researchers condensed the teachers' 392 responses into 17 categories and ranked them. The intent of this study was to add to the body of knowledge base about teachers of gifted and talented students by assessing a group of teachers' perceptions of such students' characteristics. The researchers followed an open-ended process to determine if grade level taught, years of teaching gifted and talented students, and or the number of courses workshops taken was related to those perceptions. This study identified significant differences between teachers who were experienced gifted education

teachers and those who were not. Although the reasons for some of the differences identified in this study are not clear and require further study, those perceptual differences identified in this study appear to be related as well to grade level taught and whether teachers have taken courses or workshops on gifted education.

One difference was the identification of negative characteristics. The rate of negative characteristics identified fluctuated with years of experience teaching gifted students. The researchers gave two possible reasons for this difference. First, experienced gifted education teachers recognize negative characteristics of gifted pupils as manifestations of frustration and, second, the difference can be partially attributed to grade level taught. Elementary teachers identified more negative characteristics than secondary teachers. The next characteristic the authors found noteworthy was the extensive vocabulary a gifted child seems to have. An extensive vocabulary would be more noticeable in a heterogeneous elementary classroom than in a homogeneous grouping. Teachers having more course work would recognize it as a characteristic of gifted students rather than as the behavior of a "show-off" or an intellectual threat to the teacher.

The implications of the findings and speculations are at least threefold. First, this study confirms the findings of Orenstein (1984) and Davis and Rimm (1985) and suggests that if teachers are to be effective, they need course work and involvement with gifted and talented students prior to teaching them in the mainstream placements or special programs. The second implication is that such course work / workshops should be designed to help teachers

convert negative impressions of potentially gifted and talented students into a more appropriate understanding of such characteristics. Finally, recognizing the cognitive, affective, and psychomotor development differences of gifted students, preservice and inservice teacher educators should conduct more grade level specific research. These efforts should include grade level specific teacher education components to help teachers and administrators to effectively identify the unique characteristics of gifted and talented students at each level of schooling.

Recently, another Delphi study was done by Frevert (1993). The purpose of this study was to identify the most important personal characteristics and teaching behaviors of teachers of the gifted as rated by 51 Texas elementary school principals. The study identified 19 behaviors with "Inspires critical thinking" (p. 90) as being the most important behavior. The investigation used a three-round Delphi technique, starting with 51 participants and concluding with only 24 participants to complete the study. Unfortunately, this study only elicited responses from elementary principals, leaving out secondary education principals and all teachers.

Evaluative Summary of the Literature

All of the studies into the characteristics of teachers of the gifted had one goal in common: to isolate desirable characteristics. The authors of these studies surveyed various groups or used standardized instruments to measure teacher characteristics directly. However, these studies used very little teacher input, if any at all.

Bishop (1975) and Whitlock and DuCette (1989) agreed that the research and literature have shown that the teacher has the most significant influence on gifted learners. Yet little is known about the desirable characteristics distinguishing teachers of the gifted from one another. Successful teachers of the gifted have been found to exhibit characteristics that differ from those of teachers who have not been labeled successful. These researchers reported that intelligence, enthusiasm, achievement, drive, preference for teaching gifted children, self-confidence, businesslike teaching behaviors, and promotion of student independence are among the characteristics that distinguish many teachers of the gifted.

Many experts and researchers have investigated the distinctive characteristics of teachers of the gifted. Bishop (1975) found that successful teachers of the gifted differed significantly from teachers of the nongifted. Some of these differences are in areas such as intelligence, self-confidence, need for high level of achievement, and preference for teaching bright youngsters. Ferrell et al. (1988) found that teachers of the gifted have characteristics that distinguish them from teachers of nongifted students. Then Crammer (1991) found that teachers of gifted or regular students should have training in the needs and characteristics of gifted students.

Research has taken a variety of approaches to reach the goal of isolating desirable characteristics for teachers of the gifted. Some researchers determined that the desired characteristics would be apparent by looking at the characteristics of high performing current job holders using a model from industry. Others compared groups of teachers, teachers of the gifted to teachers of the nongifted. Other

empirical studies attempted to isolate the tasks or competencies expected in the performance of teachers with desired characteristics. Several studies have examined only the broader domains of personal characteristics and cognitive characteristics to establish which category of characteristics is preferred. Only one study has purported to compare student outcomes to teacher characteristics. One of the studies asked building principals or coordinators charged with hiring and evaluating teachers of the gifted to rate the characteristics they believe to be desirable.

This review of the literature indicates that there is some consensus about the particular characteristics of teachers of the gifted, yet no single instrument appears adequate to reduce the number of possible teacher characteristics to a reasonable number that would be useful to educators. This review also indicates that there is very little direct participation of the teacher in research that could have an effect upon them and their selection as teachers for the gifted.

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